

Luis A. Sanchez, M.D.
Chief Medical Examiner



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Harris County Institute of Forensic Sciences

AMENDED AUTOPSY REPORT

Case 73 – 3378

August 15, 1973

PATHOLOGICAL DIAGNOSIS ON THE BODY

OF

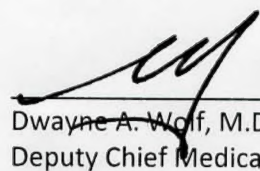
Michael Anthony Baulch
439 West 16th
Houston Texas

Asphyxia due to strangulation.

OPINION

It is our opinion that the decedent, Michael Anthony Baulch, came to his death as a result of asphyxia due to strangulation – Homicide.

Amendment reviewed by:

 09/10/10
Dwayne A. Wolf, M.D., Ph.D. MIMDDYY
Deputy Chief Medical Examiner

COMMENT: The report is amended to reflect the positive identification of the decedent by DNA comparison as 16 year old Michael Anthony Baulch.

(See Companion Cases 73 – 3376 and 73 – 3377)

POSTMORTEM EXAMINATION ON THE BODY OF

Michael Anthony Baulch439 West 16thHouston, Texas

HISTORY: This unidentified white male body was found at approximately the same time that three other bodies were uncovered during the evening of August 9, 1973, near Lake Sam Rayburn in San Augustine County, Texas. One was identified as William Ray Lawrence. His body was not sent to the Harris County Morgue. The remaining three were sent to this morgue. (73-3376, 73-3377 and 73-3378.) The three bodies arrived at the Harris County Morgue at 1:00 p.m. on August 11, 1973.

AUTOPSY: The autopsy was performed by Chief Medical Examiner Joseph A. Jachimczyk, M.D., assisted by Assistant Medical Examiners Ethel E. Erickson, M.D., and G. Sheldon Green, M.D., and Dr. Paul G. Stimson, beginning at 10:15 a.m. on August 15, 1973, in the Harris County Morgue.

EXTERNAL APPEARANCE: The decomposing body was that of a young Caucasian male, measuring approximately 68 inches in length and weighing a residual 75 pounds, submitted in a crashbag. The body was covered with white embalmer's preservative powder. The head was covered with fairly short dark brown hair, measuring up to 3-1/2 inches in length. The body had been previously autopsied. There were no clothes.

Complete postmortem X-rays of the body did not reveal the presence of any radiopaque objects.

INTERNAL EXAMINATION: Section: The body was opened through the previously made Y-shaped prior autopsy incision. The abdominal and thoracic viscera were re-examined. The body cavities emitted an unpleasant aroma.

HEART: The heart was decomposing.

LUNGS: The lungs together weighed 450 grams. They were collapsed and decomposing.

LIVER: The liver weighed 450 grams. The liver was mostly autolyzed. The gallbladder was empty.

Pancreas and Adrenals: The pancreas and adrenals were autolyzed.

SPLEEN: The spleen weighed 50 grams. There was postmortem decomposition.

GENITOURINARY TRACT: The kidneys together weighed 50 grams. They were autolyzed.

GASTROINTESTINAL TRACT: Most of the intestines were eaten away with lime. The stomach was empty.

BONES: There was a complete postmortem separation of the vertebral column between the 1st and 2nd lumbar vertebrae. The left femur was disarticulated from its acetabulum. A good portion of the soft tissue was absent. There was post-mortem absence over the right and left elbows. The distal epiphysis of the left ulna was not fused.

NECK: The hyoid bone was intact. There was hemorrhage into the tissue surrounding the hyoid bone. There was periesophageal hemorrhage. There was hemorrhagic discoloration of the larynx and first portion of the trachea on the inner surface. The thyroid cartilage was intact, but there was hemorrhage around the thyroid cartilage.

HEAD: The scalp was reflected in the usual coronal fashion. The calvarium was not remarkable. There were no skull fractures. The brain was mushy. The residual brain weighed 750 grams.

Following the autopsy, a second set of X-rays was made in order to attempt to determine the skeletal age of this individual.

The first film was an anteroposterior view of the chest and shoulders and included most of both humeri. The spine was intact. The ribs were intact. Both clavicles were visible. There was no evidence of a medial clavicular epiphysis. Most of both scapulae could be seen. The proximal humerus epiphyses were not fused. A distinct epiphyseal plate was visible in both. None of the anular epiphyses of the vertebral column appeared to be fused.

A film of the pelvis showed considerable rotation. Portions of both forearms and hands were visible. Technical detail of the latter was good, while the pelvis was underpenetrated. The distal epiphyses of the right radius was well defined. It was not fused, and there was a distinct epiphyseal plate.

The distal portion of the left radius was also well defined and also showed no fusion. In the pelvis, only the anterior portions of the iliac crest epiphyses were well visualized. These showed a distinct epiphyseal plate and appeared not to be fused. The proximal ends of the femurs were barely visible and could not be evaluated. Two of the left metacarpals were quite well demonstrated. Both appeared to have completely fused epiphyses.

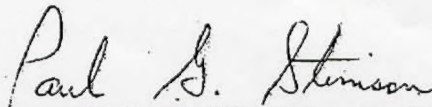
Film of the knees showed a well defined epiphyseal plate in the distal femurs. Fusion, if any, was very early. The proximal tibial epiphyses were less well visualized, but there were cortical defects at the margins of the epiphyseal plates and these appeared not to be fused. The fibulae were not well visualized.

The fourth X-ray showed the feet and ankles in the dorsal plantar view. The distal ends of the long bones of the legs were not well visualized. The metatarsal epiphyses all appeared to be completely fused. The epiphyseal lines were present in several of the proximal phalanges. They were most clearly defined in the proximal phalanges of the great toes, particularly at the proximal ends. These appeared to be unfused or only partially fused, as there was some suggestion of cortical defect at the margins of the epiphyseal plates.

Based upon the X-ray criteria, the age was estimated to be approximately 15 to 18 years.

DENTAL EXAMINATION

Utilizing the Universal System, all of the third molars are partially erupted. The upper left central, number 9, and the upper left lateral, number 10, are avulsed. The upper right second bicuspid, number 4, has undergone a 180 degree rotation. The buccal and lingual cusps are reversed. Number 22 is in mesial labial rotation. Number 25 is in lingual version, blocked out by tooth 24 and 26. Number 26 is in mesial labial rotation and number 27 is in mesial labial rotation. Jaw relationships are normal. The peridontal condition is average. Caries are noted as follows: the upper right second molar, number 2, has distal and occlusal pit caries. The upper right first molar, number 3, has distal and occlusal pit caries. There is occlusal caries on the upper left first bicuspid, number 12, on the upper left second bicuspid, number 13, on the occlusal and distal occlusal pits on the upper left first molar, which is tooth 14. Caries is present on the occlusal and distal pits on the upper left second molar, which is tooth 15, on the lower left second molar, occlusal caries, which is tooth 18. On the occlusal on the lower left second bicuspid, which is tooth 20, occlusal caries, on the lower right first bicuspid, which is tooth 28, and on the lower right second bicuspid, which is tooth 29, and an occlusal caries on the lower right second molar, which is tooth 31.



Paul G. Stimson, D.D.S., M.S.

**HARRIS COUNTY MEDICAL EXAMINER
1885 OLD SPANISH TRAIL
HOUSTON, TEXAS 77054
POSITIVE IDENTIFICATION REPORT**

ML73-3378 - MEDICAL LEGAL

DECEDENT FIRST		MIDDLE	LAST	TITLE
MICHAEL		ANTHONY	BAULCH	
STREET ADDRESS		CITY	STATE	ZIP
439 WEST 16TH		HOUSTON	TX	
DATE OF BIRTH	AGE	AGE UNIT	PHONE	
8/08/1957	16	YEARS		
INVESTIGATOR		DATE AND TIME OF REPORT		
SHARON DERRICK, PH.D		8/31/2010 10:04:00 AM		
IDENTIFICATION		NEXT OF KIN	RELATIONSHIP	
IDENTIFICATION IS POSITIVE		DEBRA	SISTER	
NOK ADDRESS				
8901 BISSONNET STREET, #227 HOUSTON TX				

POSITIVE IDENTIFICATION INFORMATION

As per the University of North Texas, Debra S. Hernandez cannot be excluded as the sibling of ML73-3378 based on autosomal STRs and mitochondrial DNA.

It is 10,000 times more likely that the bone samples from ML73-3378, items 06-4758.1 and 2B originated from a biological sibling of Debra S. Hernandez as compared to remains originating from an unrelated individual from the Caucasian population.



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Missing Persons DNA Database Report #3

August 2, 2010

Accession Number 1: 06-4753

Accession Number 2: 06-4758

Accession Number 3: 10-2720

Submitting Agency 1:

Melanie Schramm
Texas Department of Public Safety
5805 N. Lamar Blvd
Austin, TX 78752

Submitting Agency 2:

Sharon M. Derrick, Ph.D.
Harris County Institute of Forensic Sciences
1885 Old Spanish Trail
Houston, TX 77054

Agency Case Number: ML73-3378
NCIC Number: U700019506

Agency Case Numbers: PA29-30-31#2,
ML73-3378#2
NCIC Number: Not Provided

ITEMS RECEIVED

Received via Fed Ex (#857318472755) on October 26, 2006:

06-4753.1 Unidentified Remains Sample, bone

06-4758.1 Unidentified Remains Sample, bones

Item **06-4758.1** separated into three sample numbers on November 8, 2006:

06-4758.1A Unidentified Remains Sample, rib

06-4758.1B Unidentified Remains Sample, metatarsal

06-4758.1C Unidentified Remains Sample, rib

Received via Fed Ex (#865896385005) on July 10, 2008:

06-4753.2 Unidentified Remains Sample, bones

August 2, 2010

Accession Numbers: 06-4753, 06-4758, 10-2720

Agency Case Numbers: ML73-3378, PA29-30-31#2, ML73-3378#2

Missing Persons DNA Database Report

Item **06-4753.2** separated into eight sample numbers on July 15, 2008:

- 06-4753.2A** Unidentified Remains Sample, pelvis
- 06-4753.2B** Unidentified Remains Sample, sacrum
- 06-4753.2C** Unidentified Remains Sample, vertebrae
- 06-4753.2D** Unidentified Remains Sample, vertebrae
- 06-4753.2E** Unidentified Remains Sample, vertebrae
- 06-4753.2F** Unidentified Remains Sample, bone
- 06-4753.2G** Unidentified Remains Sample, bone
- 06-4753.2H** Unidentified Remains Sample, bone

Received via FedEx (#865896384800) on September 23, 2008:

- 06-4758.2** Unidentified Remains Sample, bones

Item **06-4758.2** separated into two sample numbers on September 29, 2008:

- 06-4758.2A** Unidentified Remains Sample, mandible
- 06-4758.2B** Unidentified Remains Sample, skull

Received via Fed Ex (#871266384461) on June 16, 2010:

- 10-2720.1** Family Reference Sample, **Debra S. Hernandez**, representing a sibling of a missing person, **Michael A. Baulch**

TESTING PERFORMED

Testing performed on items **06-4753.1**, **06-4753.2**, **06-4758.1**, and **06-4758.2** was noted in a previously submitted Missing Persons Report dated January 21, 2010. Human DNA extracted from item **10-2720.1** was analyzed for fifteen (15) genetic loci using the Applied Biosystems AmpF!STR Identifier system. Item **10-2720.1** was also analyzed for human mitochondrial DNA (mtDNA) regions HV1 and HV2. Amplified mtDNA fragments were sequenced in the forward and reverse direction and compared to the revised Cambridge Reference Sequence (Andrews et al. *Nature Genetics* 1999).

The genetic data obtained from item **10-2720.1** was uploaded into the *Relatives of Missing Person* indices of the Combined DNA Index System (CODIS). The genetic data

August 2, 2010

Accession Numbers: 06-4753, 06-4758, 10-2720

Agency Case Numbers: ML73-3378, PA29-30-31#2, ML73-3378#2

Missing Persons DNA Database Report

obtained from items **06-4753.2**, **06-4758.1**, and **06-4758.2** were previously uploaded into CODIS. Items **06-4753.2E**, **06-4758.1-.2B**, and **10-2720.1** were compared at the request of the agency. An association between items **06-4753.2E**, **06-4758.1-.2B**, and **10-2720.1** was noted.

RESULTS

The mitochondrial DNA data obtained from items **06-4753.2E**, **06-4758.1-.2B**, and **10-2720.1** are consistent with one another. Therefore, the remains and family reference sample cannot be excluded as being possible maternal relatives. Items **06-4753.2E** and **06-4753.1-.2B** represent two individuals.

Based on these genetic data (autosomal STRs and mitochondrial DNA), it is approximately **820 million times more likely** to be observed under the scenario that the unidentified remains, item **06-4753.2E**, originated from a biological sibling of **Debra S. Hernandez** as compared to the unidentified remains originating from an unrelated individual from the Caucasian population.¹

Based on these genetic data (autosomal STRs and mitochondrial DNA), it is approximately **10,000 times more likely** to be observed under the scenario that the unidentified remains, item **06-4758.1-.2B**, originated from another biological sibling of **Debra S. Hernandez** as compared to the unidentified remains originating from an unrelated individual from the Caucasian population.¹

The submission of additional first-order relatives could significantly increase the above statistical calculations. If additional statistical weight is needed, please contact the laboratory to determine which first-order relatives would provide the most informative comparisons.

Investigators are strongly encouraged to evaluate all associated case information in addition to the provided genetic results before declaring identity of the remains.

In the event that an identification is rendered by the appropriate legal authority, a copy of the death certificate must be submitted to the laboratory so that all genetic data obtained from the associated family reference sample(s) can be expunged from the CODIS database.

The remainder of the reference item will be maintained by the UNT Center for Human Identification laboratory.

In the event that you have any questions or if we can be of further assistance, please feel free to contact the laboratory at 817-735-2143.

The above is the opinion of the undersigned, and this report shall not be reproduced without verbal or written permission.

August 2, 2010

Accession Numbers: 06-4753, 06-4758, 10-2720

Agency Case Numbers: ML73-3378, PA29-30-31#2, ML73-3378#2

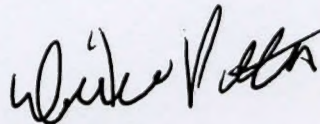
Missing Persons DNA Database Report

¹ Allele frequency data obtained from Budowle et.al, J Forensic Sci 1999; 44(6):1277-1286 and Budowle et.al, Forensic Sci Comm 2001; (3); mtDNA frequency data obtained from Forensic Science Communications, April 2002, Volume 4, Number 2

Sincerely,



Sarah Schultheis
Forensic Analyst
UNT Center for Human ID



Dixie Peters
Forensic Analyst/Report Review
UNT Center for Human ID

End of Report



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Missing Persons DNA Database Query

August 25, 2010

Submitting Agency 1:

Texas Dept. of Public Safety
Melanie Schramm
5805 N. Lamar Blvd.
Austin, TX 78752

Submitting Agency 2:

Harris County Medical Examiner's Office
Dr. Sharon Derrick
1885 Old Spanish Trail
Houston, TX 77054

Agency Case Number(s): ML73-3378, ML73-3333

Accession Number(s): 10-2720, 10-2727

Missing Person: Michael A. Baulch

At the request of the submitting agency(ies), the DNA data obtained from the *Unidentified Remains* sample **10-2727.1** was searched against DNA data contained within the *Relatives of Missing Person* index in CODIS. This search included the data from family reference sample(s) **10-2720.1** submitted on behalf of missing person **Michael A. Baulch**.

The search **did not** return any valid associations between samples. The DNA data from the unidentified remains and reference sample(s) will remain in the database for future comparisons and for upload to the National DNA Index System if appropriate.

In the event that you have any questions or if we can be of further assistance please contact the laboratory at 800-763-3147.

Sincerely,

Melody Josserand, MS
CODIS Administrator
UNT Center for Human ID



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Missing Persons DNA Database Report

January 21, 2010

Accession Number 1: 06-4753

Accession Number 2: 06-4758

Submitting Agency:

Sharon M. Derrick, Ph.D.
Harris County Medical Examiner's Office
1885 Old Spanish Trail
Houston, TX 77054

Agency Case Number: PA29-30-31#2, ML73-3378#2
NCIC Number: Not Provided

ITEMS RECEIVED

Received via FedEx (#857318472755) on October 26, 2006:

06-4753.1 Unidentified Remains Sample, bone

06-4758.1 Unidentified Remains Sample, bones

Item **06-4758.1** separated into three sample numbers on November 8, 2006:

06-4758.1A Unidentified Remains Sample, rib

06-4758.1B Unidentified Remains Sample, metatarsal

06-4758.1C Unidentified Remains Sample, rib

Received via FedEx (#865896385005) on July 10, 2008:

06-4753.2 Unidentified Remains Sample, bones

January 21, 2010

Accession Numbers: 06-4753, 06-4758

Agency Case Numbers: PA29-30-31#2, ML73-3378#2

Missing Persons DNA Database Report

Item **06-4753.2** separated into eight sample numbers on July 15, 2008:

06-4753.2A Unidentified Remains Sample, pelvis

06-4753.2B Unidentified Remains Sample, sacrum

06-4753.2C Unidentified Remains Sample, vertebrae

06-4753.2D Unidentified Remains Sample, vertebrae

06-4753.2E Unidentified Remains Sample, vertebrae

06-4753.2F Unidentified Remains Sample, bone

06-4753.2G Unidentified Remains Sample, bone

06-4753.2H Unidentified Remains Sample, bone

Received via FedEx (#865896384800) on September 23, 2008:

06-4758.2 Unidentified Remains Sample, bones

Item **06-4758.2** separated into two sample numbers on September 29, 2008:

06-4758.2A Unidentified Remains Sample, mandible

06-4758.2B Unidentified Remains Sample, skull

RESULTS

Items **06-4753.2G** and **06-4753.2H** were not tested. Human DNA extracted from items **06-4753.2A** and **06-4758.2A** was analyzed for nine (9) genetic loci using the Applied Biosystems AmpF ℓ STR Profiler Plus ID system. Human DNA extracted from items **06-4753.2B**, **06-4753.2C**, **06-4753.2D**, **06-4753.2E**, **06-4753.2F**, **06-4758.1A**, and **06-4758.1C** was analyzed for thirteen (13) genetic loci using the Applied Biosystems AmpF ℓ STR Profiler Plus ID and COfiler systems. Human DNA extracted from items **06-4758.1B** and **06-4758.2B** was analyzed for fourteen (14) genetic loci using the Applied Biosystems AmpF ℓ STR Profiler Plus ID, COfiler, and Minifiler systems. Human DNA extracted from items **06-4753.2C**, **06-4753.2E**, and **06-4753.2F** was analyzed for sixteen (16) Y chromosome loci using the Applied Biosystems AmpF ℓ STR Yfiler system. Items **06-4753.1**, **06-4753.2A**, **06-4753.2B**, **06-4753.2C**, **06-4753.2D**, **06-4753.2E**, **06-4753.2F**, **06-4758.1A**, **06-4758.1B**, **06-4758.2A**, and **06-4758.2B** were also analyzed for human mitochondrial DNA (mtDNA) regions HV1 and HV2. Amplified

January 21, 2010

Accession Numbers: 06-4753, 06-4758

Agency Case Numbers: PA29-30-31#2, ML73-3378#2

Missing Persons DNA Database Report

mtDNA fragments were sequenced in the forward and reverse direction and compared to the revised Cambridge Reference Sequence (Andrews et al. *Nature Genetics* 1999).

No reportable nuclear DNA results were obtained from items **06-4753.2A**, **06-4753.2F**, **06-4758.1A**, **06-4758.1C**, and **06-4758.2A**. No reportable mitochondrial DNA results were obtained from item **06-4753.1**

The mitochondrial DNA data obtained from items **06-4753.2A**, **06-4753.2E**, and **06-4753.2F** are consistent with these samples originating from different maternally related males or may originate from the same male individual.

The genetic data obtained from items **06-4753.2C** and **06-4753.2D** are consistent with these samples originating from the same male individual.

The genetic data observed from items **06-4753.2A**, **06-4753.2E**, and **06-4753.2F** are not consistent with the genetic data observed from items **06-4753.2C** and **06-4753.2D**. Therefore, these items represent at least two separate individuals.

The genetic data observed from item **06-4753.2B** are not consistent with any of the above items (**06-4753.2A**, **06-4753.2C**, **06-4753.2D**, **06-4753.2E**, and **06-4753.2F**). Therefore, item **06-4753.2B** represents a separate individual.

The genetic data obtained from items **06-4758.1B** and **06-4758.2B** are consistent with these samples originating from the same male individual. The mitochondrial DNA data obtained from item **06-4758.1A** are concordant with the above two items (**06-4758.1B** and **06-4758.2B**) and therefore either originates from the same individual or is a different maternally related individual.

The mitochondrial DNA data obtained from item **06-4758.2A** are not consistent with any of the above items (**06-4758.1A**, **06-4758.1B**, and **06-4758.2B**). Therefore, item **06-4758.2A** represents a separate individual.

The genetic data obtained from items **06-4753.2B**, **06-4753.2C**, **06-4753.2E**, **06-4758.1A**, **06-4758.1B**, **06-4758.2A**, and **06-4758.2B** were uploaded into the *Unidentified Human (Remains)* index of the Combined DNA Index System (CODIS). A mitochondrial DNA association between items **06-4753.2E**, **06-4758.1A**, **06-4758.1B**, and **06-4758.2B** was noted.

Utilizing the mtDNA population database currently available from the FBI Laboratory, the mtDNA sequence obtained from items **06-4753.2A**, **06-4753.2E**, **06-4753.2F**, **06-4758.1A**, **06-4758.1B**, and **06-4758.2B** (16024-16379, 52-396) has been observed as follows: **0 in 1305** individuals of African descent, **0 in 1833** individuals of Caucasian descent, **0 in 759** individuals of Hispanic descent, **0 in 326** individuals of Native American descent, and **0 in 848** individuals of Asian descent. The mtDNA haplotype obtained for items **06-4753.2A**, **06-4753.2E**, **06-4753.2F**, **06-4758.1A**, **06-4758.1B**, and

January 21, 2010

Accession Numbers: 06-4753, 06-4758

Agency Case Numbers: PA29-30-31#2, ML73-3378#2

Missing Persons DNA Database Report

06-4758.2B may occur in as much as **0.39%** of the U.S. population (African American, Caucasian and Hispanic).¹

In comparing the most conservative nuclear genetic data from the associated cases (items **06-4753.2E** and **06-4758.2B**), the association is at least **394 times more likely** to be observed under the scenario that the unidentified remains are related as parent-offspring or at least **379 times more likely** to be observed under the scenario that the unidentified remains are related as siblings as compared to the unidentified remains originating from unrelated individuals from the three major U.S. population groups (African American, Caucasian and Southwestern Hispanic).¹

The following is a summary of the associated samples.

Associated Samples	Association
06-4753.2A, 06-4753.2E, 06-4753.2F	1 individual or multiple maternal relatives
06-4753.2C = 06-4753.2D	1 individual
06-4753.2B	1 individual
06-4758.1B = 06-4758.2B	1 individual
06-4758.1A	Same individual as 06-4758.1B and 06-4758.2B or maternal relative
06-4758.2A	1 individual

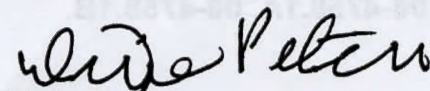
A portion of the submitted remains will be maintained by the UNT Center for Human Identification laboratory.

In the event that you have any questions or if we can be of further assistance, please feel free to contact the laboratory at 817-735-2143.

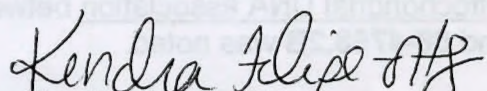
The above is the opinion of the undersigned, and this report shall not be reproduced without verbal or written permission.

¹ Allele frequency data obtained from Budowle et.al, J Forensic Sci 1999; 44(6):1277-1286; mtDNA frequency data obtained from Forensic Science Communications, April 2002, Volume 4, Number 2.

Sincerely,



Dixie Peters
Forensic Analyst
UNT Center for Human ID



Kendra Felipe Ortega
Forensic Analyst/Report Review
UNT Center for Human ID

End of report



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Missing Persons DNA Database Report

April 6, 2010

Accession Number 1: 06-4753

Accession Number 2: 06-4758

Accession Number 3: 09-0166

Submitting Agency:

Sharon M. Derrick, Ph.D.
Harris County Medical Examiner's Office
1885 Old Spanish Trail
Houston, TX 77054

Agency Case Number: PA29-30-31#2, ML73-3378#2, ME-39

NCIC Number: Not Provided

ITEMS RECEIVED

Received via FedEx (#857318472755) on October 26, 2006:

06-4753.1 Unidentified Remains Sample, bone

06-4758.1 Unidentified Remains Sample, bones

Item **06-4758.1** separated into three sample numbers on November 8, 2006:

06-4758.1A Unidentified Remains Sample, rib

06-4758.1B Unidentified Remains Sample, metatarsal

06-4758.1C Unidentified Remains Sample, rib

Received via FedEx (#865896385005) on July 10, 2008:

06-4753.2 Unidentified Remains Sample, bones

April 6, 2010

Accession Numbers: 06-4753, 06-4758, 09-0166

Agency Case Numbers: PA29-30-31#2, ML73-3378#2, ME-39

Missing Persons DNA Database Report

Item **06-4753.2** separated into eight sample numbers on July 15, 2008:

- 06-4753.2A** Unidentified Remains Sample, pelvis
- 06-4753.2B** Unidentified Remains Sample, sacrum
- 06-4753.2C** Unidentified Remains Sample, vertebrae
- 06-4753.2D** Unidentified Remains Sample, vertebrae
- 06-4753.2E** Unidentified Remains Sample, vertebrae
- 06-4753.2F** Unidentified Remains Sample, bone
- 06-4753.2G** Unidentified Remains Sample, bone
- 06-4753.2H** Unidentified Remains Sample, bone

Received via FedEx (#865896384800) on September 23, 2008:

- 06-4758.2** Unidentified Remains Sample, bones

Item **06-4758.2** separated into two sample numbers on September 29, 2008:

- 06-4758.2A** Unidentified Remains Sample, mandible
- 06-4758.2B** Unidentified Remains Sample, skull

Received via FedEx (#865896384649) on January 6, 2009:

- 09-0166.1** Unidentified Remains Sample, bone segment

TESTING PERFORMED

Testing performed on items **06-4753.1**, **06-4753.2**, **06-4758.1**, and **06-4758.2** was noted in a previously submitted Missing Persons Report dated January 21, 2010. Human DNA extracted from item **09-0166.1** was analyzed for thirteen (13) genetic loci using the Applied Biosystems AmpF!STR Profiler Plus ID and COfiler systems. Item **09-0166.1** was also analyzed for human mitochondrial DNA (mtDNA) regions HV1 and HV2. Amplified mtDNA fragments were sequenced in the forward and reverse direction and compared to the revised Cambridge Reference Sequence (Andrews et al. *Nature Genetics* 1999).

The genetic data obtained from item **09-0166.1** was uploaded into the *Unidentified Human (Remains)* index of the Combined DNA Index System (CODIS). The genetic

April 6, 2010

Accession Numbers: 06-4753, 06-4758, 09-0166

Agency Case Numbers: PA29-30-31#2, ML73-3378#2, ME-39

Missing Persons DNA Database Report

data obtained from items **06-4753.2**, **06-4758.1**, and **06-4758.2** were previously uploaded into CODIS. A mitochondrial DNA association between items **06-4753.2E**, **06-4758.1**, **06-4758.2B**, and **09-0166.1** was noted.

RESULTS

No nuclear DNA results were obtained from item **09-0166.1**.

The mitochondrial DNA data obtained from items **06-4753.2A**, **06-4753.2E**, **06-4753.2F**, **06-4758.1A**, **06-4758.1B**, **06-4758.2B**, and **09-0166.1** are consistent with one another. Therefore, the remains cannot be excluded as being possible maternal relatives or originating from the same individual.

Utilizing the mtDNA population database currently available from the FBI Laboratory, the mtDNA sequence obtained from the unidentified remains, items **06-4753.2A**, **06-4753.2E**, **06-4753.2F**, **06-4758.1A**, **06-4758.1B**, **06-4758.2B**, and **09-0166.1**, (**16024-16379**, **52-396**) has been observed as follows: **0 in 1305** individuals of African descent, **0 in 1833** individuals of Caucasian descent, **0 in 759** individuals of Hispanic descent, **0 in 326** individuals of Native American descent, and **0 in 848** individuals of Asian descent. The mtDNA haplotype obtained from items **06-4753.2A**, **06-4753.2E**, **06-4753.2F**, **06-4758.1A**, **06-4758.1B**, **06-4758.2B**, and **09-0166.1** may occur in as much as **0.39%** of the U.S. population (African American, Caucasian, and Hispanic).¹

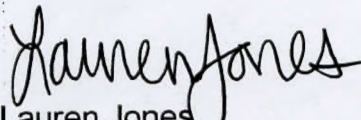
A portion of the submitted remains will be maintained by the UNT Center for Human Identification laboratory.

In the event that you have any questions or if we can be of further assistance, please feel free to contact the laboratory at 817-735-2143.

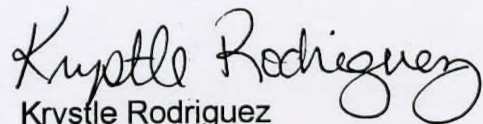
The above is the opinion of the undersigned, and this report shall not be reproduced without verbal or written permission.

¹mtDNA frequency data obtained from Forensic Science Communications, April 2002, Volume 4, Number 2.

Sincerely,



Lauren Jones
Forensic Analyst
UNT Center for Human ID



Krystle Rodriguez
Forensic Analyst/Report Review
UNT Center for Human ID

End of report